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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,724	10/28/2003	Eric Frayssinet	15675P314CX	5542
8791	7590	07/29/2005	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			LEE, HSIEN MING	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,724	Applicant(s) FRAYSSINET ET AL.	
	Examiner Hsien-ming Lee	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/530,050.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HSIEN-MING LEE
PRIMARY EXAMINER

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Remarks

1. The objection to claims 1, 3, and 5-10 and to the specification have been withdrawn in response to applicant's amendment.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 11-12 and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Letertre et al. (US 6,794,276).

Although it is noted that claims 11-12 and 14-15 are a product-by-process claim, product-by-process claims are directed to the product no matter how actually made. *In re Taylor*, 149 USPQ 615, 617 (CCPA 1966). Consequently, it is the patentability of the final product, and not the patentability of the process, that must be determined in a product-by-process claim. *In re Thorpe*, 227 USPQ 964, 966 (CAFC 1985), *Ex parte Edwards* 231 USPQ 981, 983 (BdPatApp&Int 1986). See M.P.E.P. 2113

In re claims 11-12, Letertre et al. teach that an epitaxial gallium nitride layer 16 obtained by a hydride vapor phase epitaxy (HVPE) process (col. 7, lines 24 and 36-39).

In re claims 14-15, Letertre et al. teach an optoelectronic component provided with an epitaxial layer of gallium nitride according to a HVPE process (col. 2, lines 40-47 and (col. 7, lines 24 and 36-39).

4. Claims 13 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Yuasa et al. (US 2002/0048964).

Although it is noted that claims 13 and 18 are a product-by-process claim, product-by-process claims are directed to the product no matter how actually made. *In re Taylor*, 149 USPQ 615, 617 (CCPA 1966). Consequently, it is the patentability of the final product, and not the patentability of the process, that must be determined in a product-by-process claim. *In re Thorpe*, 227 USPQ 964, 966 (CAFC 1985), *Ex parte Edwards* 231 USPQ 981, 983 (BdPatApp&Int 1986). See M.P.E.P. 2113

In re claim 13, Yuasa et al. teach an epitaxial gallium nitride layer obtained by HVPE process (paragraph 0056)), wherein the threading dislocation density ranges from 2×10^7 to 1×10^8 /cm² (Fig.2).

In re claim 18, Yuasa et al. teach a thick gallium nitride layer obtained by HVPE process (paragraph 0056)) on a crystalline substrate, wherein the thickness of the gallium nitride is 100 μm ~1,000 μm (Fig.2).

5. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hayashi et al. (US 6,319,742).

Although it is noted that claims 16 and 17 are a product-by-process claim, product-by-process claims are directed to the product no matter how actually made. *In re Taylor*, 149 USPQ 615, 617 (CCPA 1966). Consequently, it is the patentability of the final product, and not the

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patentability of the process, that must be determined in a product-by-process claim. *In re Thorpe*, 227 USPQ 964, 966 (CAFC 1985), *Ex parte Edwards* 231 USPQ 981, 983 (BdPatApp&Int 1986). See M.P.E.P. 2113

Hayashi et al. teach a gallium nitride layer obtained by epitaxial lateral overgrowth on a crystalline substrate (col. 10, lines 25-26).

6. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vaudo et al. (US 6,440,823).

Although it is noted that claims 19 and 20 are a product-by-process claim, product-by-process claims are directed to the product no matter how actually made. *In re Taylor*, 149 USPQ 615, 617 (CCPA 1966). Consequently, it is the patentability of the final product, and not the patentability of the process, that must be determined in a product-by-process claim. *In re Thorpe*, 227 USPQ 964, 966 (CAFC 1985), *Ex parte Edwards* 231 USPQ 981, 983 (BdPatApp&Int 1986). See M.P.E.P. 2113

In re claim 19, Vaudo et al. teach a free standing gallium nitride layer obtained after separating from the starting substrate (col. 19, lines 21-22).

In re claim 20, Vaudo et al. teach an optoelectronic component (i.e. Schottky rectifier) provided with a free standing gallium nitride (col. 19, lines 21-22).

Allowable Subject Matter

7. Claims 1-10 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: see previous Office action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday (8:00 ~ 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hsien-ming Lee
Primary Examiner
Art Unit 2823

July 27, 2005

HSIEN-MING LEE
PRIMARY EXAMINER

